

## **ABSTRACT**

An electronically controlled valve actuator having an armature, a valve, and a coupler for coupling the actuator to the valve with motion of the armature in a first direction moving the second piston in a second direction. The actuator includes an electromagnet, an armature disposed adjacent to the electromagnetic, and a fluid-containing chamber. The fluid-containing chamber includes a first piston providing a first wall portion of the chamber and a second piston providing a second wall portion of the chamber. The first piston is coupled to the armature and the second piston is coupled to a valve. Activation of the electromagnet moves the first piston in a first direction, such motion of the first piston in the first direction driving fluid in the chamber to move the second piston in an opposite direction.